

# Siphonaptera from South Africa

by

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The types of the new species described below are in the collection of the South African Institute for Medical Research at Johannesburg.

## ***Ctenophthalmus calceatus septentrionalis* subsp. nov.**

♂ (Fig. 1) Clasper as in *cabirus* J. & R. with the apical processes divided by a deep sinus and Pi with three bristles but less rounded apically and dorsally than in *cabirus* and *ansorgei* R. and unlike *calceatus* (Waterst.) it is not rounded ventrally.

♀ (Fig. 2) St. VII with a deep triangular sinus and the upper lobe somewhat triangular as in *calceatus* and hence unlike *cabirus*.

I have a number of *calceatus* from near the type locality collected from *Rhabdomys pumilio* which is the animal from which the type was collected. These all show a rounded clasper but not quite so rounded as figured by Rothschild. The females have st. VII as shown by Waterston for the type but there is some variation in the shape of the upper lobe of the sinus and some specimens approach *cabirus* in this respect. As far as I know the females of *ansorgei* and *cabirus* are inseparable. The new sub-species approaches *ansorgei* in the shape of the clasper, but the sinus of the process of the clasper is deeper and approaches *cabirus* and *cataganus* J. in this respect.

I have been able to compare this insect with *cabirus* ♂ and ♀ off *Otomys* sp. from Victoria Nyanza near Bukoba, kindly presented to the Institute by Prof. Julius Wagner of Belgrade.

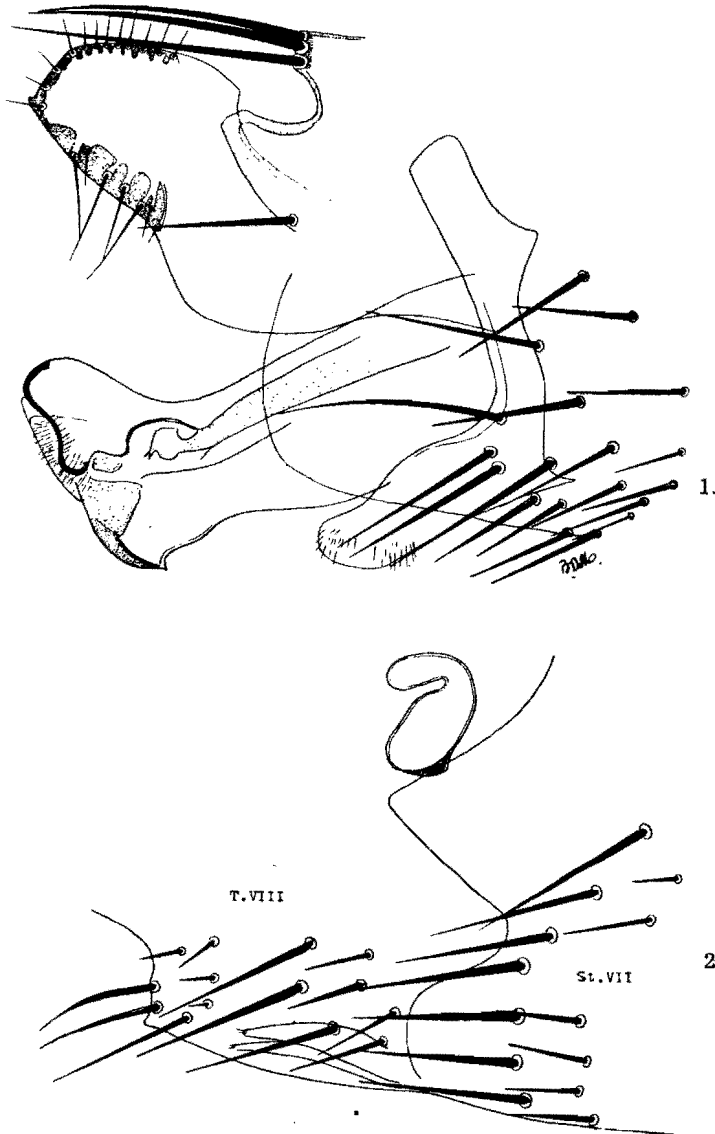
♂, type from a gerbille nest in a mole run, Randfontein, Transvaal, September, 1925. (A. Ingram.)

2 ♀♀, from a gerbilles nest, Barrage, O.F.S., October, 1925. (A. Ingram.)

1 ♂, 2 ♀♀, off *Mastomys coucha*, Baragwanath, Transvaal, September, 1937. (L. Fourie.)

3 ♂♂, 3 ♀♀, off *Rhabdomys pumilio*, Baragwanath, Transvaal, September, 1937. (L. Fourie.)

The species of *Ctenophthalmus* with a more or less elongated and rounded clasper in the male and a deep triangular sinus in st. VII of the female are all very closely related. It is difficult at the moment to decide exactly what the status of these insects should be.



*Ctenophthalmus calceatus septentrionalis* subsp. n.,

Fig. 1: Male terminalia. Fig. 2: Female terminalia.

It is a fact, however, that the shape of the clasper is quite constant even if the differences may appear to be negligible to those who have not seen the actual specimens. Unfortunately fleas of this genus are

not common and their distribution appears to be very localized, secondly there are large gaps in our knowledge of the occurrence of these fleas in Africa as so little collecting has been done. In the meantime it would appear to be advisable to record and figure the specimens showing slight but constant morphological differences from different geographical areas until such time as a comprehensive review of the genus can be undertaken.

***Chiastopsylla crassus* sp. nov.**

A species belonging to the *rossi* series and closely related to *rossi* (Waterst.) but differing in the shape of the clasper and having only two pairs of scales on the IXth st. Large numbers of *Chiastopsylla*, all *rossi*, have been examined from this area for longer than a year and it is remarkable that this distinct species should so suddenly turn up. It was found among a large batch of *rossi* but there was no female which could definitely be said to be other than *rossi*. *Terminalia* (Fig. 3) Clasper elongated, at least twice as long as wide at the base of the finger; finger does not taper as much as in *rossi*; st. IX with only two pairs of scales; st. VIII with only one bristle, *rossi* has three or four in this position. In all other respects the insect is like *rossi*.

1 ♂, from the nest of *Otomys irroratus*, Kroonstad, Transvaal. 11.8.39 (D. H. S. Davis).

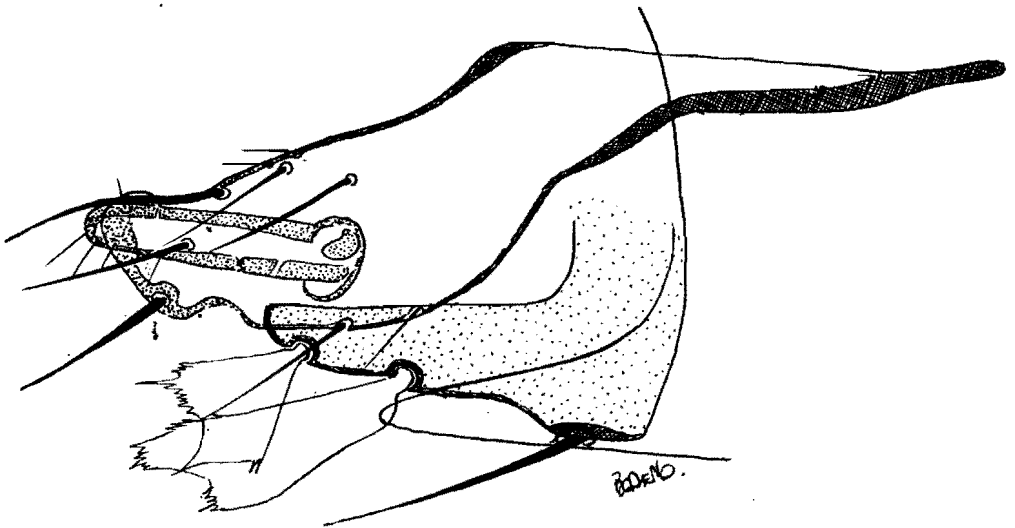


Fig. 3: *Chiastopsylla crassus* sp. nov., male terminalia.

**Ctenocephalides felis damarensis** Jordan

In the Institute collection there are a large number of *Ctenocephalides* from a hare collected at Tzaneen in 1933. These I identified at that time as *felis strongylus* "but males like *connatus*". There is no question that these insects are *damarensis*. The females have the long head and short proboscis of *felis felis* and only two bristles on each side of the abdominal sternites. They are therefore unlike *connatus*. The males on the other hand have from 4-6 short spines near the ventral apex of tarsus V of the foreleg, they are therefore like *connatus*. We also have a number of *Ctenocephalides* from South West Africa collected in 1934 and again identified like the Tzaneen specimens. These also agree with Jordan's description of *damarensis*.

Jordan suggested that since he took no *felis strongylus* in South West Africa that *damarensis* was the representative of *felis* in that territory. The interesting fact, however, is that *felis strongylus* is common on dogs in Tzaneen, and we have a large number of specimens from this source. So here, at least, *strongylus* and *damarensis* exist side by side, and it is quite possible that the former will also be found to exist in S.W.A.

Our records of *damarensis* are as follows:—

A series from *Genetta* sp. Gobabis, S.W.A. 14.11.25.

A series from *Ictonyx* sp. Gobabis, S.W.A. 14.11.25.

A series from *Cynictis* sp. Ombalantu, S.W.A. August '34.

A series from *Cynictis* sp. Onkolonkathi, S.W.A. August '34.

A series from *Lepus saxatilis*, Kings Walden, New Agatha, Tzaneen, Tvl., 20.11.33.

A series from *Lepus saxatilis*, Kings Walden, New Agatha, Tzaneen, Tvl., 14.11.33.